

REMARKS

In a Final Office Action dated October 26, 2005, the Examiner: (1) objected to claims 16-18 and 38 for minor informalities; (2) rejected claims 1, 3-13, 16-32, and 34-38 under 35 U.S.C. § 112, first paragraph or second paragraph; (3) rejected claims 1, 3-6, 16-20, 30 and 32 under 35 U.S.C. § 102(b) as being anticipated by Handfield et al. (U.S. Pat. No. 5,663,496); (3) rejected claims 7-11, 21-27, 34, 37, and 38 under 35 U.S.C. § 103(a) based on a combination of Handfield and Stewart et al. (U.S. Pat. Appl. Pub. No. 2005/0179530); (4) rejected claims 12, 13, 28, and 29 under 35 U.S.C. § 103(a) based on a combination of Handfield and Betts (U.S. Pat. No. 4,991,439); (5) rejected claim 31 under 35 U.S.C. § 103(a) based on a combination of Handfield and Anderson et al. (U.S. Pat. No. 6,891,239); (6) rejected claim 35 under 35 U.S.C. § 103(a) based on a combination of Handfield and Shoor (U.S. Pat. No. 3,185,869); and (7) rejected claim 36 under 35 U.S.C. § 103(a) based on a combination of Handfield and Dauenhauer et al. (U.S. Pat. No. 5,178,016).

By this Amendment, Applicants amend claims 1, 3, 10, 16, 22, 23, 26, and 38 without prejudice or disclaimer of the subject matter thereof. No new matter has been added. By way of example, support for amendments to independent claims 1, 16, and 38 can be found in paragraphs 53 and 54 of the Specification. Applicants further cancel claims 2, 14, 15, 17, 18, 30, 31, and 33 without prejudice or disclaimer of the subject matter thereof. Applicants respectfully submit that pending claims 1, 3-13, 16, 19-29, 32, and 34-38 are not anticipated or obvious based on the cited references and accordingly respectfully seek allowance of the pending claims for at least the reasons given below.

Concerning the objection to claims 16 and 38, each of these claims has been amended to correct the minor informalities identified by the Examiner. Accordingly, Applicants respectfully request the Examiner to withdraw the objection to claims 16 and 38. Claims 17 and 18 have been canceled and thus the objection to claims 17 and 18 is moot.

Regarding the rejection of claims 1, 3-13, 16-32, and 34-38 under 35 U.S.C. § 112, first paragraph or second paragraph, Applicants have amended independent claims 1, 16, and 38 to recite the correct relationship between respective sample and transmitting rates. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of these claims.

Regarding the rejection of claims 1, 3-6, 16-20, 30 and 32 under 35 U.S.C. § 102(b) as being anticipated by Handfield, Applicants have amended independent claims 1 and 16.

Applicants respectfully submit that, as amended, independent claim 1 is patentable at least because Handfield does not teach a method for operating a tire pressure monitoring system, in which a piezoelectric sensor is used to sense vibration and using a controller it is determined whether an output signal of the piezoelectric sensor is above a predetermined threshold, and wherein the piezoelectric sensor is mounted on a lead frame and the controller is implemented in an integrated circuit, which is stacked on top of the piezoelectric sensor, such that the integrated circuit, acting as a mass, increases sensitivity of the piezoelectric sensor to vibrations. Claims 3-11 depend, directly or indirectly, from claim 1 and thus are patentable for at least the reasons given above with respect to claim 1. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claims 1 and 3-11 under 35 U.S.C. § 102(b) as being anticipated by Handfield.

For similar reasons as given above with respect to claim 1, claim 16 is also not anticipated by Handfield, since Handfield does not teach a tire pressure monitoring system where a piezoelectric senses vibration of a wheel and a controller samples an indication of a sensed condition, where the piezoelectric sensor is mounted on a lead frame and the controller is implemented in an integrated circuit, which is stacked on top of the piezoelectric sensor, such that the integrated circuit, acting as a mass, increases sensitivity of the piezoelectric sensor to vibrations. Claims 19, 20, 30, and 32 depend, directly or indirectly, from claim 16 and are thus patentable for at least the reasons given above with respect to claim 16. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claims 16, 19, 20, 30, and 32 under 35 U.S.C. § 102(b) as being anticipated by Handfield.

Regarding the rejection of claims 7-11, 21-27, 34, 37, and 38 under 35 U.S.C. § 103(a) based on a combination of Handfield and Stewart, Applicants respectfully submit that for the reasons given above with respect to claims 1 and 16, Handfield does not teach each and every element of these claims. Claims 7-11, 21-27, 34, and 37 depend, directly or indirectly, from claim 1 or claim 16 and are thus patentable because Stewart fails to cure the deficiency of teachings of Handfield. In particular, concerning claims 7-11, Stewart does not teach or suggest a method for operating a tire pressure monitoring system, in which a piezoelectric sensor is used to sense vibration and using a controller it is determined whether an output signal of the piezoelectric sensor is above a predetermined threshold, and wherein the piezoelectric sensor is mounted on a lead frame and the controller is implemented in an integrated circuit, which is

stacked on top of the piezoelectric sensor, such that the integrated circuit, acting as a mass, increases sensitivity of the piezoelectric sensor to vibrations. Additionally, concerning claims 21-27, 34, and 37, Stewart does not teach or suggest a tire pressure monitoring system where a piezoelectric senses vibration of a wheel and a controller samples an indication of a sensed condition, where the piezoelectric sensor is mounted on a lead frame and the controller is implemented in an integrated circuit, which is stacked on top of the piezoelectric sensor, such that the integrated circuit, acting as a mass, increases sensitivity of the piezoelectric sensor to vibrations. Finally, regarding claim 38, neither Handfield nor Stewart teaches or suggests a tire pressure monitoring system comprising a piezoelectric sensor for sensing vibration of a wheel and a controller for sampling the indication of a sensed pressure, where the piezoelectric sensor is mounted on a lead frame and the controller is implemented in an integrated circuit die, which is stacked on top of the piezoelectric sensor, such that the integrated circuit die, acting as a mass, increases sensitivity of the piezoelectric sensor to vibrations. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claims 7-11, 21-27, 34, 37, and 38 under 35 U.S.C. § 103(a) based on a combination of Handfield and Stewart.

Concerning the rejection of claims 12, 13, 28, and 29 under 35 U.S.C. § 103(a) based on a combination of Handfield and Betts, Applicants respectfully submit that for the reasons given above with respect to claims 1 and 16, Handfield does not teach each and every element of these claims. Claims 12 and 13 depend, directly or indirectly, from claim 1 and are thus patentable because Betts fails to cure the deficiency of teachings of Handfield. In particular, Betts does not teach or suggest a method for operating a tire pressure monitoring system, in which a piezoelectric sensor is used to sense vibration and using a controller it is determined whether an output signal of the piezoelectric sensor is above a predetermined threshold, and wherein the piezoelectric sensor is mounted on a lead frame and the controller is implemented in an integrated circuit, which is stacked on top of the piezoelectric sensor, such that the integrated circuit, acting as a mass, increases sensitivity of the piezoelectric sensor to vibrations. Nor does Betts teach or suggest a tire pressure monitoring system where a piezoelectric senses vibration of a wheel and a controller samples an indication of a sensed condition, where the piezoelectric sensor is mounted on a lead frame and the controller is implemented in an integrated circuit, which is stacked on top of the piezoelectric sensor, such that the integrated circuit, acting as a mass, increases sensitivity of the piezoelectric sensor to vibrations. Thus, even when combined

(which they cannot be), Handfield and Betts do not make the subject matter of claims 12, 13, 28, and 29 obvious. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claims 12, 13, 28, and 29 under 35 U.S.C. § 103(a) based on a combination of Handfield and Betts.

Regarding the rejection of claim 31 under 35 U.S.C. § 103(a) based on a combination of Stewart and Anderson, claim 31 has been canceled and thus this rejection is moot.

With respect to the rejection of claim 35 under 35 U.S.C. § 103(a) based on a combination of Handfield and Shoor, Applicants respectfully submit that for the reasons given above with respect to claim 16, from which claim 35 depends, Handfield does not teach all of the claimed limitations of claim 16. Shoor does not cure the deficiencies of teachings of Handfield. In particular, Shoor does not teach or suggest a tire pressure monitoring system where a piezoelectric senses vibration of a wheel and a controller samples an indication of a sensed condition, where the piezoelectric sensor is mounted on a lead frame and the controller is implemented in an integrated circuit, which is stacked on top of the piezoelectric sensor, such that the integrated circuit, acting as a mass, increases sensitivity of the piezoelectric sensor to vibrations. Thus, even when combined (which they cannot be), Handfield and Shoor do not make the subject matter of claim 35 obvious. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claim 35 under 35 U.S.C. § 103(a) based on a combination of Handfield and Shoor.

Concerning the rejection of claim 36 under U.S.C. § 103(a) based on a combination of Handfield and Dauenhauer, Applicants respectfully submit that for the reasons given above with respect to claim 16, from which claim 36 depends, Handfield does not teach all of the claimed limitations of claim 16. Dauenhauer does not cure the deficiencies of teachings of Handfield. In particular, Dauenhauer does not teach or suggest a tire pressure monitoring system where a piezoelectric senses vibration of a wheel and a controller samples an indication of a sensed condition, where the piezoelectric sensor is mounted on a lead frame and the controller is implemented in an integrated circuit, which is stacked on top of the piezoelectric sensor, such that the integrated circuit, acting as a mass, increases sensitivity of the piezoelectric sensor to vibrations. Thus, even when combined (which they cannot be), Handfield and Dauenhauer do not make the subject matter of claim 36 obvious. Accordingly, Applicants respectfully request

the Examiner to withdraw the rejection of claim 36 under 35 U.S.C. § 103(a) based on a combination of Handfield and Daucnhauer.

Based on the reasons above, Applicants respectfully seek allowance of pending claims 1, 3-13, 16, 19-29, 32, and 34-38. Should issues remain that might be subject to resolution through a telephonic interview, the Examiner is requested to telephone the undersigned at (512) 996-6839. If Applicants have overlooked any additional fees, or if any overpayment has been made, the Commissioner is hereby authorized to credit or debit Deposit Account 503079.

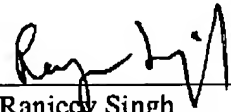
Respectfully submitted,

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